

**PETBOT
RIGHT OF WAY
DESIGN GUIDELINES
HANDBOOK**

CITY OF CLEVELAND

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DIVISION OF ENGINEERING AND CONSTRUCTION

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PREFACE

A well-constructed and maintained system of public spaces can inspire a sense of pride in the community and encourage further enhancements while poorly designed or maintained spaces can create a negative impression of a city. The City of Cleveland is committed to the enhancement and long-term maintenance of its public spaces, specifically the rights-of-way.

The PETBOT Committee (Planning, Engineering, Traffic, and Bureau of Traffic) was created for the purpose of reviewing all proposed improvements to the City's rights-of-way and to create comprehensive street standards that are intended to provide guidance for private-sector interests as well as City personnel that are involved in such enhancement activities.

For the purposes of this program, the term "street improvement" is defined as enhancements to elements within the public rights-of-way, including roadways, sidewalks, curbs, tree lawns and trees, paver blocks, signs, street furniture, and all other elements that occur in the area between the face of the curb and the right-of-way/private property line.

REGULATORY TERMS

Public Right-of-Way: is the area, owned by the City that extends from the private property line on one side of a public thoroughfare to the private property line on the other side. Commonly included in this area are the sidewalks, tree lawns, curbs, and street pavement. In the Downtown area, building facades often abut the right-of-way line. In other areas of the City, there is often a required setback for buildings from the right-of-way line. (See Cleveland Codified Ordinance 401.49.)

Setback: is a City-required area, on private property, that lies between the right-of-way/private property line and built improvements, such as buildings or parking facilities, where nothing may be constructed without a variance being granted. Setback widths vary from street to street. (See Cleveland Codified Ordinance 325.61 and the Building Zone Maps of the City of Cleveland.)

Encroachment: is the term used when a private entity physically constructs or locates a building, handicap access ramp, pole banner, sign, parking lot, etc. in the City's public right-of-way, including the areas above and below the surface. (See Cleveland Codified Ordinance 3109.01-3109.20.)

Because the public is entitled to the unobstructed and uninterrupted use of the entire width of highways, streets, and sidewalks, any attempt to utilize a portion of the public rights-of-way for private purposes (such as those listed above) requires an application for and the issuance of an Encroachment Permit by the City.

Unobstructed Walkway: is that area of a sidewalk that is reserved for pedestrian use. This area shall not include any above-grade streetscape or building elements that could interfere with the ability of a pedestrian to proceed, in a straight path, along a given street. The required width for the unobstructed walkway varies depending on the location and level of pedestrian traffic expected.

City of Cleveland Codified Ordinances can be found at the following website link:

https://codelibrary.amlegal.com/codes/cleveland/latest/cleveland_oh/0-0-0-1

Cleveland Standard Construction Drawings can be found at the following website link:

https://www.clevelandohio.gov/sites/default/files/forms_publications/Standard%20Construction%20Drawings.pdf

PLAN REVIEW REQUIREMENTS

SIDEWALKS

Section 505.01 of the Codified Ordinances of the City of Cleveland defines the term “sidewalk” as “the space between the property line and the curb line on each side of the paved roadway or curbed streets.” It is the adjacent property owner’s responsibility to construct and maintain the sidewalk and curb or gutter abutting their property.

Central Business District

A minimum six inch thick concrete walkway shall be maintained on all sidewalks in the Central Business District.

A minimum eight foot wide unobstructed walkway shall be maintained on all sidewalks within the Central Business District where streetscape enhancements are considered. In high-pedestrian areas, a ten foot wide unobstructed sidewalk is desired.

Neighborhood Areas

A minimum four inch thick concrete walkway shall be maintained on all sidewalks in areas outside the Central Business District, however, a six-inch thickness is encouraged in neighborhood commercial districts.

A minimum five foot wide unobstructed concrete walkway shall be maintained in residential areas outside the Central Business District.

A minimum six foot wide unobstructed concrete walkway shall be maintained on all sidewalks in neighborhood commercial areas.

All Areas

The unobstructed walkway shall be addition to any areas designated for the amenity strip and/or the utility chase.

Paver blocks included in an amenity strip may be considered to be part of the unobstructed walkway if no obstructions (i.e. trees, poles, sign posts) are located within that portion of the paver block strip which is to be considered as walkway.

A broom finish shall be utilized on concrete sidewalks unless an alternative finish has been reviewed and approved by the City Planning Commission. The finished concrete shall be broomed perpendicular to the curb for better drainage and to achieve a more uniform appearance. The scoring pattern utilized should match with other appropriate streetscape elements such as tree grates. Saw-cut or hand-tooled scoring in a five-foot by five-foot pattern is typical. No tool marks shall be present.

Expansion joints shall be utilized wherever differing pavement types abut one another and as standard construction practices dictate. Generally, expansion joints should be spaced at 20 to 30 foot intervals and where the project abuts an adjoining property or permanent structure.

Streetscape improvements that result in the replacement of existing concrete walk shall be required to replace full squares to the saw-cut/expansion joint. Replacement of other pavement types (pavers, granite, dyed concrete, etc.) shall be made utilizing in-kind materials.

Bituminous asphalt pavement shall not be used as sidewalk material in the public right-of-way.

Heating elements may be incorporated into sidewalks with the approval of the Administrative Manager of the Division of Engineering and Construction.

ROADWAYS

Roadway Classification

The function classification for a City of Cleveland public roadway is utilized as a management tool to establish the required design criteria for various roadway features such as lane and shoulder widths, horizontal and vertical design criteria and design speeds.

The functional classification is also a management tool to establish project eligibility for federal funding and data collection requirements. To ensure the City's continued eligibility for federal funding to maintain, repair, and replace public roadways, all roadways constructed in the public right-of-way must meet the design criteria established by ODOT Design Resource Center:

<https://www.dot.state.oh.us/DRRC/Pages/default.aspx>

The functional classification for a roadway can be found at the Northeast Ohio Areawide Coordinating Agency (NOACA) GIS Portal

<https://www.noaca.org/tools-resources/maps>

(toggle on Legend and toggle on roads checking Functional Class). If a road is not shown as federally classified than it class considered a local street.

Roadway Design Criteria

The minimum right of way width for a public street is 50 feet. The specific design criteria for City of Cleveland roadways, including required lane and shoulder widths, horizontal and vertical design criteria, clear zone clearances, design speeds, geometric design, and all other design elements shall follow the latest edition of the Ohio Department of Transportation "Location and Design Manual Volume 1 (<https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/location-design-vol-1/location-design-vol-1>). At a minimum the design criteria for Horizontal and Vertical Design (Section 200), Cross Section Design (Section 300), Intersection Design (Section 400), Clear Zone (Section 600.2) shall be followed.

Curb return radius shall depend upon the roadway classification and the type of users on the roadway facility. Typically a curb return should be designed for a School Bus (Standard 40 foot length). The minimum curb return radius for residential street is 25 foot preferred.

Local residential streets shall be 20 feet (10 feet per lane) with 22 feet preferred. Local industrial/business streets shall be minimum 22 feet (11 feet per lane) with 24-feet preferred for truck routes. Roadway design details can be found in the Division of Engineering and Construction Standard Construction Drawings website link

https://www.clevelandohio.gov/sites/default/files/forms_publications/Standard%20Construction%20Drawings.pdf

Any design for City of Cleveland roadways shall be performed by ODOT pre-qualified consultants in Non-Complex roadway design and other associated disciplines prior to submittal to the City of Cleveland.

A Traffic Justification Study performed by an engineering consultant prequalified by the Ohio Department of Transportation in the associated disciplines shall be required if roadway project proposals are submitted to reduce roadway capacity by reducing the lane widths, the number of lanes, or altering speed limits for roadways prior to submittal to the City of Cleveland. All traffic studies shall utilize certified traffic data by the Ohio Department of Transportation.

Roadway Material Specifications

The material specifications for a City of Cleveland roadway shall follow the Division of Engineering and Construction “D Specifications” and supplemented by the latest edition of the Ohio Department of Transportation Construction and Material Specifications Manual. The materials specifications may be augmented as necessary by the individual project “DS Specifications” as deemed necessary and approved by the Administrative Manager of the Division of Engineering and Construction.

Roadway Post Construction Best Management Practices

To ensure the City’s continued eligibility for federal funding to maintain, repair, and replace public roadways, City of Cleveland post construction best management practices (BMPs) for public roadways shall meet the design criteria established by the latest edition of the Ohio Department of Transportations “Location and Design Manual Volume Two Drainage Design”.

The installation of post construction best management practices (BMPs) for public roadways or adjacent pavements/swales to public roadways will be evaluated and approved on a case-by-case basis by the Administrative Manager of the Division of Engineering and the Construction and the Commissioner of Water Pollution Control to ensure the long-term stability and durability of the roadway pavement and to ensure the facility does not conflict with either the City of Cleveland and the Ohio Department of Transportation design standards.

CURBS

Central Business District

Curbs located in within the Central Business District shall be constructed of granite. Two types of granite curb are allowed: a six-inch wide “New England” structural (split-faced) and a six or eight-inch wide Cleveland standard (polished).

Curbs located outside of the Central Business District shall be constructed of either granite or concrete. Sandstone or other materials shall not be utilized in curb construction.

Neighborhood Areas

Curbs located in neighborhood areas shall be constructed of granite or concrete.

All Areas

A minimum six inch reveal shall be maintained on all new or reconstructed curbs.

Where new curbs are constructed, the materials and profile shall match those on adjacent properties along the same block face wherever possible.

Efforts should be made to salvage and reuse or stockpile existing granite curbing.

Non-conforming curbs may be maintained where they are distinctive in nature or where they match important materials of adjacent buildings.

New or reset curbs shall extend a minimum of 24 inches below and six inches above the grade of the adjacent street pavement.

HANDICAP RAMPS

All newly constructed handicap ramps shall conform to American's With Disabilities Act requirements as interpreted by the City of Cleveland Division of Engineering and Construction and ODOT ADA ramp guidelines.

A handicap curb ramp shall be constructed at all marked crosswalks both at and between intersections. Plans shall be reviewed by the Commissioner of Traffic Engineering.

Due to safety and drainage concerns, single handicap curb ramps shall not be constructed in such a way as to extend around the radius of an intersection.

Handicap ramps leading from buildings shall conform to all American's With Disabilities Act requirements. If such ramps project or extend into the public right-of-way, it must be reviewed and approved by the Administrative Manager of Engineering and Construction and an Encroachment Permit will be required.

A separate handicap ramp shall be constructed for each crosswalk unless the physical conditions at the site do not allow for it.

The City of Cleveland ADA ramp standards and Special Provisions can be found at the following website link:

https://www.clevelandohio.gov/sites/default/files/forms_publications/HandicapRAMPDrawings2009.pdf?id=3190

https://www.clevelandohio.gov/sites/default/files/forms_publications/StreetOpeningRegulations.pdf?id=2925

The Ohio DOT ADA Design Resources website can be found at the following link:

<https://www.transportation.ohio.gov/working/publications/ada-design-resources>

SPECIAL PAVEMENT TYPES

The City regulates the use of special pavement types in the public rights-of-way as outlined below. Please note pavers are not permitted in cross-walk, sidewalk, or roadway construction.

Pavement materials other than previously specified shall be confined to an area known as an “amenity strip” and/or areas located on private property outside the public rights-of-way. These special pavement types may be allowed to be installed immediately in front of and adjacent to primary building entrances in order to highlight them.

The use of stamped asphalt in-lays and stamped concrete crosswalks will be considered for use as enhancements in certain districts such as the Central Business District. These pavement types may be allowed in other districts on a case by case basis with the review and consent of the Administrative Manager of Engineering and Construction.

AMENITY STRIPS

An amenity strip is defined as the area between the sidewalk and the utility chase or curb line where light poles, trees, street furniture, special paving, and other streetscape elements are typically located.

Central Business District

Amenity strips in the Central Business District may be installed along all or a portion of a city block where the minimum distance from the right-of-way line to the curb line is twelve feet wider than the proposed strip to allow for an eight foot wide unobstructed walkway.

Amenity strips shall be located two feet behind the curb and may range from two feet to six feet in width depending on total sidewalk width.

Neighborhood Areas

Amenity strips in neighborhood commercial districts may be installed along all or a portion of a city block where the minimum distance from the right-of-way line to the back of the curb is eight feet wider than the proposed strip to allow for a five foot wide unobstructed walkway and a two-foot wide utility chase where appropriate.

In neighborhood areas where underground utility lines for street lighting are not in place or proposed, amenity strips may be constructed adjacent to the back of the curb. In neighborhood areas where underground utilities are in place or proposed, amenity strips shall be two feet behind the back of the curb.

All Areas

Amenity strips shall consist of pavers installed in a consistent pattern, specially scored concrete, or approved stone units that are unique from the remaining concrete sidewalk. Any material used in amenity strips other than those mentioned above, is subject to the approval of the Administrative Manager of Engineering and Construction.

If the streetscape design includes trash receptacles, trees, tree grates, public art, street furniture, and light poles, these elements must be located on/in the amenity strip. Other elements such as fire hydrants and emergency call boxes may be located in the amenity strip if they are pre-existing and would not otherwise require relocation.

CURB CUTS/MEDIANS/DROP-OFF ZONES/RECESSED PARKING ZONES/CROSS-WALKS/BUMP-OUTS

This section deals with elements of the public right-of-way that lie within the roadway itself. It should be noted that these guidelines do not supersede any zoning requirements.

Driveways shall not exceed 30 feet in width measured at the right of way line. Driveways should conform to City Standard detail drawing number CD-1 found at the following link:

https://www.clevelandohio.gov/sites/default/files/forms_publications/Standard%20Construction%20Drawings.pdf

Industrial/business driveways requiring larger apron radii for truck movements should reference ODOT L & D Section 803 for guidance.

Curb cuts shall be a minimum of 30 feet apart when measured from the nearest points of the radii in question.

The Division of Traffic Engineering shall review and approve requests for the construction of driveways and curb cuts.

A permit shall be secured from the Division of Assessments and Licenses for all new driveways and curb cuts.

Bump-Outs (also known as bulb-outs or curb extensions) are acceptable in limited locations and shall be reviewed and approved by the Commissioner of Traffic Engineering and Administrative Manager Division Engineering and Construction.

Locations and dimensions for all cross-walks in City rights-of-way shall be determined by the Division of Traffic Engineering.

Typically, cross-walks are defined by the use of white painted stripes on the pavement surface. Where a comprehensive streetscape improvement project is constructed, other surface treatments such as colored, impressed concrete may be considered.

Commissioner of Traffic Engineering will consider enhanced Ladder Style crosswalks for high volume pedestrian crossings. White stripes will always be incorporated into the cross-walk design.

Recessed Parking Zone plans shall be submitted to the Division of Traffic Engineering for review and approval on a case-by-case basis.

Drop-Off/Pick-Up Zone requests shall be submitted to the Division of Traffic Engineering for review by a traffic engineer. The appropriate signage shall be installed if approved. Please refer to Codified Ordinance 451.33 for more details.